



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,677	01/27/2004	Naoyuki Nishikawa	B422-251 (25813.258)	3038
26272 7590 07/07/2010 COWAN LIEBOWITZ & LATMAN P.C. JOHN J TORRENTE 1133 AVE OF THE AMERICAS NEW YORK, NY 10036				
EXAMINER NGUYEN, ALLEN H				
ART UNIT		PAPER NUMBER		
2625				
MAIL DATE		DELIVERY MODE		
07/07/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,677

Applicant(s)

NISHIKAWA, NAOYUKI

Examiner

Allen H. Nguyen

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/226)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/24/2010 has been entered. Currently, claims 1-9 are pending.

Response to Arguments

2. Applicant's arguments filed 05/24/2010 have been fully considered but they are not persuasive.
3. With respect to Applicant's argument that "Lobiondo does not disclose a print response means for performing a print control protocol for a local printer in the local network so that the client computer can recognize said remote printing server as a local printer in the local network as a result of receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be completed locally in the client computer before the print data is spooled".

In response, Lobiondo discloses print response means (Scheduler 50, fig. 1) for performing a print control protocol (Ethernet system for a LAN protocol, col.

Art Unit: 2625

3, lines 20-25) for a local printer in the local network (i.e., the scheduler 50 is responsive to the capability and availability of each printer 10 on the network; see col. 3, lines 64-67) so that the client computer (Workstation 30, fig. 1) can recognize said remote printing server as a local printer in the local network (a server computer is programmed to receive plot requests in a common spooling area sent from other workstations /clients in a network and / or a print shop scheduler 50 is located within the network either at the print server 60 or at various local workstations 30 within the network for analyzing the information relating to the job; see col. 1, lines 35-40 and col. 3, lines 40-45), receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be completed locally in the client computer before the print data is spooled (scheduler 50 will prompt the user that the print queue is backed up and will have a completion time which is not in the near future. The user may then enter through the user interface a request to utilize a different printer, enter a required completion time and have the scheduler 50 allocate the job to one or more available printers; col. 5, lines 25-30; therefore print job must be generated first before being spooled to a different printer queue).

4. With respect to Applicant's argument that "Lobiondo does not disclose the print server responding to a print job submitted by a workstation in a manner which allows that workstation to locally complete the submitted print job and

Art Unit: 2625

thereby recognize the print sever as a local printer before the print data associated with that print job is spooled on the print server”.

In response, Lobiondo discloses a user at one of the workstations 30 of the network enters a request to print a job, sends the print job data to a network print spooler 60, and enters all necessary criteria which is stored in an input data file in memory and the scheduler 50 of print server is responsive to the capability and availability of each printer 10 on the network having information relating to the print job and the resources on the network to distributed printing; see col. 3, lines 55-68. Recognizing the print server as a local printer is performed by a client which not part of the claimed limitation. A person certainly can program the client computer to recognize the server as a local printer without the print server perform anything different from the print server of Lobiondo.

5. With respect to Applicant's argument that “Lobiondo is silent as to the print server responding to a submitted print job in a manner which enables a workstation to recognize the print server as a local printer which provides local completion of the submitted print job prior to the print server distributing the submitted print job to remote printers”.

In response, col. 4, lines 30-50, Lobiondo discloses a request entered by a user on the network, the scheduler 50 of print server can notify the user how the job will be distributed, and when the job is to be completed. Additionally, the user would enter the time when completion of the job is required (and any other criteria associated with a print job) into memory within the print spooler 60. The

Art Unit: 2625

scheduler 50 analyzes the printers 10 on the network and determines which printers 10 on the network are capable of producing the job.

Recognizing the print server as a local printer is performed by a client which not part of the claimed limitation. A person certainly can program the client computer to recognize the server as a local printer without the print server perform anything different from the print server of Lobiondo.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-4, 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US 5,287,194) in view of Hanson (US 6,148,346).

Regarding claim 1, Lobiondo '194 discloses a remote printing server (Print server 60, fig. 1) which receives data from a client computer (Workstation 30, fig. 1) via a local network (Communication link 20, fig. 1) and sends data over a network (i.e., the network can be a LAN; col. 3, lines 20-25) so as to print the data on a remote printer (a routine which can schedule and distribute a large job

Art Unit: 2625

among a plurality of local and remote printers attached to a network, col. 2, lines 20-25, fig. 1), comprising:

print response means (Scheduler 50, fig. 1) for performing a print control protocol (Ethernet system for a LAN protocol, col. 3, lines 20-25) for a local printer in the local network (i.e., the scheduler 50 is responsive to the capability and availability of each printer 10 on the network; see col. 3, lines 64-67) so that the client computer (Workstation 30, fig. 1) can recognize said remote printing server as a local printer in the local network (a server computer is programmed to receive plot requests in a common spooling area sent from other workstations /clients in a network and / or a print shop scheduler 50 is located within the network either at the print server 60 or at various local workstations 30 within the network for analyzing the information relating to the job; see col. 1, lines 35-40 and col. 3, lines 40-45), receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be completed locally in the client computer before the print data is spooled (scheduler 50 will prompt the user that the print queue is backed up and will have a completion time which is not in the near future. The user may then enter through the user interface a request to utilize a different printer, enter a required completion time and have the scheduler 50 allocate the job to one or more available printers; col. 5, lines 25-30);

spooling means (Print Spooler, fig. 3) for spooling the print data received by said print response means (i.e., the print job data can be input into the system and sent to a common print spooler 60. Upon analysis of available printers and

Art Unit: 2625

the entered criteria, the scheduler 50 schedules one or more printers 10 for printing of the job; see col. 6, lines 25-35, fig. 3);

transferring data conversion means (Input Criteria, fig. 3) for converting the print data spooled by said spooling means (Print spooler, fig. 3) into a transferrable format in which the print data can be transferred to the remote printer over the network (A user at one of the workstations 30 of the network enters a request to print a job, sends the print job data to a network print spooler 60, and enters all necessary criteria which is stored in an input data file in memory. Depending on the type of data to be printed, such as type of document, sizing criteria, formatting, margins, where copies are to be sent. A means by which Input Criteria could be compared, judged and converted according to the remote printer; see col. 3, lines 35-65 and col. 6, lines 20-30) using a predetermined transfer protocol (col. 3, lines 20-25 states the network can be Xerox Ethernet system. Xerox Ethernet system inherently has protocol used in the system used by Xerox); and

remote transfer means (Routines, fig. 3) for transferring the print data (scheduling routine and system which provide optimum scheduling of printer jobs on a network, col. 2, lines 40-45) converted into the transferrable format by said transferring data conversion means (Input criteria means such as type of document, sizing criteria, formatting, margins, where copies are converted to be sent, etc; see col. 3, lines 50-60) to the remote printer over the network (a plurality of local and remote printers attached to a network, col. 2, lines 20-25, fig. 1) using the predetermined transfer protocol (col. 3, lines 20-25 states the

Art Unit: 2625

network can be Xerox Ethernet system. Xerox Ethernet system inherently has protocol used in the system used by Xerox).

Lobiondo '194 does not explicitly show a remote printing server which receives data from a client computer via a local network and sends data over a global network so as to print the data on a remote printer which does not exist in the local network.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Hanson '346. In particular, Hanson '346 teaches a remote printing server (WWW Server, fig. 1) which receives data from a client computer (PC 23, fig. 1) via a local network (Company A Local Net 20, fig. 1) and sends data over a global network (Internet 22, fig. 1) so as to print the data on a remote printer (the administrator can assign a proxy server on networks which have a gateway to the Internet and the firewall of the administrator's network. With a firewall installed, there is a need to assign a server which will act as a proxy on the outside of the firewall. The proxy server will handle requests and/or data destined for machines located inside the firewall; see col. 4, lines 10-20, and col. 6, lines 55-65, fig. 1).

In view of the above, having the system of Lobiondo and then given the well-established teaching of Hanson, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Lobiondo as taught by Hanson to include: a remote printing server which receives data from a client computer via a local network and sends data over a global network so as to print the data on a remote printer which does not

Art Unit: 2625

exist in the local network, since Hanson stated in col. 2, lines 2-5 that such a modification would make sure printing over the Internet is facilitated and the time and effort involved in Internet printing is reduced and providing a significant amount of user friendly two way communication between a computer operating system and a connected peripheral device at run time.

Regarding claim 3, Lobiondo '194 does not explicitly show the remote printing server, further comprising: selection means for selecting a transfer protocol for remote transfer of the data.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Hanson '346. In particular, Hanson '346 teaches the remote printing server (Server 57, fig. 2), further comprising:

selection means (i.e., FTPping, col. 3, line 33) for selecting a transfer protocol for remote transfer of the data (i.e., file transfer protocol sending or FTPing of various documents, such as Excel, Word, MacWrite, etc., to a peripheral device for execution; see col. 3, lines 30-35).

In view of the above, having the system of Lobiondo and then given the well-established teaching of Hanson, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Lobiondo as taught by Hanson to include: the remote printing server, further comprising: selection means for selecting a transfer protocol for remote transfer of the data, since Hanson stated in col. 2, lines 2-5 that such a modification would make sure printing over the Internet is facilitated and the time

Art Unit: 2625

and effort involved in Internet printing is reduced and providing a significant amount of user friendly two way communication between a computer operating system and a connected peripheral device at run time.

Regarding claim 4, Lobiondo '194 does not explicitly show the remote printing server, wherein said remote transfer means uses a file transfer protocol or a mail distribution protocol.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Hanson '346. In particular, Hanson '346 teaches the remote printing server (Server 57, fig. 2), wherein said remote transfer means (i.e., FTPping, col. 3, line 33) uses a file transfer protocol (i.e., file transfer protocol sending or FTPping of various documents, such as Excel, Word, MacWrite, etc., to a peripheral device for execution; see col. 3, lines 30-35) or a mail distribution protocol.

In view of the above, having the system of Lobiondo and then given the well-established teaching of Hanson, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Lobiondo as taught by Hanson to include: the remote printing server, wherein said remote transfer means uses a file transfer protocol or a mail distribution protocol, since Hanson stated in col. 2, lines 2-5 that such a modification would make sure printing over the Internet is facilitated and the time and effort involved in Internet printing is reduced and providing a significant

Art Unit: 2625

amount of user friendly two way communication between a computer operating system and a connected peripheral device at run time.

Regarding claim 6, Lobiondo '194 discloses the remote printing server (Print server 60, fig. 1), further comprising:

transfer control means (Schedule 50, fig. 1) for controlling a transfer parameter setting file (printing parameters, col. 6, lines 54-55) and said remote transfer means by referring to the transfer parameter setting file (i.e., the scheduler 50 then examines the printer queue (step 430) and determines if the printer can complete the job by the required time (step 440). If the job can be completed on time the job is allocated to the printer (step 450). The user is then informed of the job schedule (step 460). If the printer cannot complete the job by the required time, the amount of the job that can be completed on time is determined (step 415); see col. 6, lines 55-65, fig. 4).

Regarding claim 7, Lobiondo '194 discloses a remote print system (Fig. 1), comprising: the remote printing server (Print Server 60, fig. 1) and the remote printer (Printers 10, fig. 1).

Regarding claim 8, claim 8 is the method claim of device claim 1. Therefore, method claim 8 is rejected for the reason given in device claim 1.

Regarding claim 9, Lobiondo '194 discloses a computer-readable storage medium storing a program used to direct a computer to use as a remote printing server (i.e., the information, which contains criteria for printing the job, can be sent to and temporarily stored in a buffer, RAM or other storage means located within a print server 60 or associated with the network and accessible by the print server 60; see col. 3, lines 35-45, fig. 1) for receiving data from a client computer (Workstation 30, fig. 1) via a local network (i.e., the network can be a LAN; col. 3, lines 20-25) and for sending data over a network so as to print the data on a remote printer (a routine which can schedule and distribute a large job among a plurality of local and remote printers attached to a network, col. 2, lines 20-25, fig. 1), comprising:

a print response step (410, fig. 4) of performing a print control protocol (Ethernet system for a LAN protocol, col. 3, lines 20-25) for a local printer in the local network (i.e., the scheduler 50 is responsive to the capability and availability of each printer 10 on the network; see col. 3, lines 64-67) so that the client computer (Workstation 30, fig. 1) can recognize said remote printing server as a local printer in the local network (a server computer is programmed to receive plot requests in a common spooling area sent from other workstations /clients in a network and / or a print shop scheduler 50 is located within the network either at the print server 60 or at various local workstations 30 within the network for analyzing the information relating to the job; see col. 1, lines 35-40 and col. 3, lines 40-45), receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be

Art Unit: 2625

completed locally in the client computer before the print data is spooled (scheduler 50 will prompt the user that the print queue is backed up and will have a completion time which is not in the near future. The user may then enter through the user interface a request to utilize a different printer, enter a required completion time and have the scheduler 50 allocate the job to one or more available printers; col. 5, lines 25-30);

a spooling step (430, fig. 4) of spooling the print data received in said print response step (i.e., the print job data can be input into the system and sent to a common print spooler 60. Upon analysis of available printers and the entered criteria, the scheduler 50 schedules one or more printers 10 for printing of the job; see col. 6, lines 25-35, fig. 3);

a transferring data conversion step (450, fig. 4) of converting the print data spooled in said spooling step (Print spooler, fig. 3) into a transferrable format in which the print data can be transferred to the remote printer over the network (A user at one of the workstations 30 of the network enters a request to print a job, sends the print job data to a network print spooler 60, and enters all necessary criteria which is stored in an input data file in memory. Depending on the type of data to be printed, such as type of document, sizing criteria, formatting, margins, where copies are to be sent. A means by which Input Criteria could be compared, judged and converted according to the remote printer; see col. 3, lines 35-65 and col. 6, lines 20-30) using a predetermined transfer protocol (col. 3, lines 20-25 states the network can be Xerox Ethernet system. Xerox Ethernet system inherently has protocol used in the system used by Xerox);

a remote transfer step (460, fig. 4) of transferring the print data (scheduling routine and system which provide optimum scheduling of printer jobs on a network, col. 2, lines 40-45) converted into the transferrable format in said transferring data conversion step (Input criteria means such as type of document, sizing criteria, formatting, margins, where copies are converted to be sent, etc; see col. 3, lines 50-60) to the remote printer over the network (a plurality of local and remote printers attached to a network, col. 2, lines 20-25, fig. 1) using the predetermined transfer protocol (col. 3, lines 20-25 states the network can be Xerox Ethernet system. Xerox Ethernet system inherently has protocol used in the system used by Xerox).

Lobiondo '194 does not explicitly show a remote printing server for receiving data from a client computer via a local network and sends data over a global network so as to print the data on a remote printer which does not exist in the local network.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Hanson '346. In particular, Hanson '346 teaches a remote printing server (WWW Server, fig. 1) for receiving data from a client computer (PC 23, fig. 1) via a local network (Company A Local Net 20, fig. 1) and sends data over a global network (Internet 22, fig. 1) so as to print the data on a remote printer (WWW attached Printers 36, fig. 1) which does not exist in the local network (the administrator can assign a proxy server on networks which have a gateway to the Internet and the firewall of the administrator's network. With a firewall installed, there is a need to assign a server which will act as a proxy on

Art Unit: 2625

the outside of the firewall. The proxy server will handle requests and/or data destined for machines located inside the firewall; see col. 4, lines 10-20, and col. 6, lines 55-65, fig. 1).

In view of the above, having the system of Lobiondo and then given the well-established teaching of Hanson, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Lobiondo as taught by Hanson to include: a remote printing server for receiving data from a client computer via a local network and sends data over a global network so as to print the data on a remote printer which does not exist in the local network, since Hanson stated in col. 2, lines 2-5 that such a modification would make sure printing over the Internet is facilitated and the time and effort involved in Internet printing is reduced and providing a significant amount of user friendly two way communication between a computer operating system and a connected peripheral device at run time.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US 5,287,194) in view of Hanson (US 6,148,346) and further in view of Kitagawa et al. (US 5,799,206).

Regarding claim 2, the combination of Lobiondo '194 and Hanson '346 does not explicitly show the remote printing server, further comprising:

recovery means for performing a recovery process on the print completion job transferred by said remote transfer means as necessary.

However, the above-mentioned claimed limitation is well known in the art as evidenced by Kitagawa '206. In particular, Kitagawa '206 teaches recovery means (i.e., detected contents; see col. 3, lines 1-5) for performing a recovery process on the print completion job transferred by said remote transfer means as necessary (i.e., the host computer can check the status of the printer by utilizing the detected contents which is set in the polling response data unit and in the event that normal printing is not carried out, it can inform the user of host computer 110 of a cause of an error and conduct the error recovery processing such as re-sending of a print job; see col. 3, lines 5-15).

In view of the above, having the combination system of Lobiondo and Hanson and then given the well-established teaching of Kitagawa, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Lobiondo and Hanson as taught by Kitagawa to include: recovery means for performing a recovery process on the print completion job transferred by said remote transfer means as necessary, since Kitagawa stated in col. 1, lines 10-15 that such a modification would ensure the host computers are capable of recognizing the status of the network printer and control the operation thereof and to a computer used in the remote print system.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US 5,287,194) in view of Hanson (US 6,148,346), and further in view of Ogishima (US 2002/0083001).

Regarding claim 5, the combination of Lobiondo '194 and Hanson '346 does not explicitly show the remote printing server, further comprising: encipher means for enciphering the print completion job transferred by said remote transfer means.

However, the above-mentioned claimed limitation is well known in the art as evidenced by Ogishima '001. In particular, Ogishima '001 teaches the remote printing server (12, fig. 3), further comprising: encipher means for enciphering the print completion job transferred by said remote transfer means (i.e., a transmitting step enciphering requested data in the server and transmitting enciphered data via a network, a deciphering step receiving and deciphering the enciphered data in an apparatus which at least has a printing function; see page 2, paragraph [0019], fig. 3).

In view of the above, having the system of Lobiondo and Hanson and then given the well-established teaching of Ogishima, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Lobiondo and Hanson as taught by Ogishima to include: The remote printing server, further comprising: encipher means for enciphering the print completion job transferred by said remote transfer means, since Ogishima stated on page 1, paragraph [0007] that such a modification would ensure various enciphering systems have been proposed to prevent copying of the digital data, by enciphering the digital data before transmission at the transmitting end and deciphering the enciphered digital data at the receiving end.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen H. Nguyen whose telephone number is (571)270-1229. The examiner can normally be reached on 9:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KING Y. POON can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Allen H. Nguyen/
Examiner, Art Unit 2625